

REMARKS

Applicants have amended claims 1, 2, 46, 47, 52, and 65. Support for these amendments can be found in the original claims and in the Specification. Claims 1-14, 16, 17, 22-25, 30-36, and 38-66 are currently pending. Reconsideration of the pending application is respectfully requested in view of the following remarks.

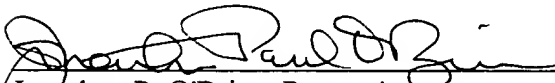
Rejections Under 35 U.S.C. § 112

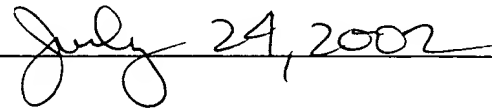
Claims 1-14, 16, 17, 22-25, 30-36, and 38-66 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Applicants have addressed each of the typographical errors identified by the examiner. See subparagraphs 4a-c, e-l, n, p and q in the Office Action at pages 3-4. With respect to the phenyl substituents, the phrase "at each occurrence, phenyl is optionally substituted with..." modifies all the substituents of formula I that contain a phenyl moiety, e.g., R₆ and R₇. See subparagraphs 4d and 4m of the Office Action. Claims 1 and 47 have been amended to supply antecedent basis for -CH₃ and -CF₃ as possible phenyl substituents. See claims 19 and 58. Reconsideration of these rejections is respectfully requested in view of the foregoing amendments and remarks.

CONCLUSION

Claims 1-14, 16, 17, 22-25, 30-36, and 38-66 are now in condition for allowance, which action is respectfully request. Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned **"Version with markings to show changes made"**.

Respectfully submitted,

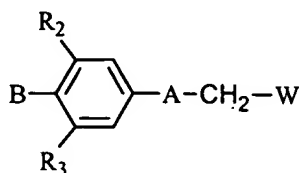

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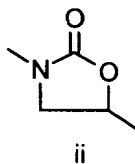
Version with markings to show changes made

1. A compound of formula I

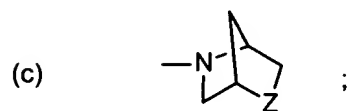
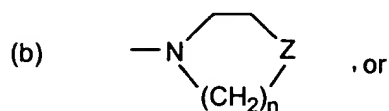
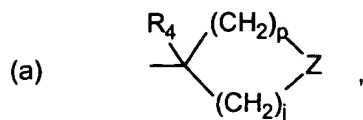


or a pharmaceutically acceptable salt thereof wherein:

A is a structure ii



B is



W is NHC(=X)R₁, or -Y-het; [provided that when A is a structure iv, W is not -Y-het;]

X is O, or S; provided that when X is O, B is not the subsection (b)[.];

Y is NH, O, or S;

Z is S(=O)(=N-R₅);

R₁ is



- (b) NH_2 ,
- (c) $\text{NHC}_{1-4}\text{alkyl}$,
- (d) $\text{C}_{1-4}\text{alkyl}$,
- (e) $\text{C}_{2-4}\text{alkenyl}$,
- (f) $\text{OC}_{1-4}\text{alkyl}$,
- (g) $\text{SC}_{1-4}\text{alkyl}$, or
- (h) $(\text{CH}_2)_p \text{C}_{3-6}\text{cycloalkyl}$;

at each occurrence, alkyl or cycloalkyl in R_1 is optionally substituted with one or more F, Cl or CN;

R_2 and R_3 are independently H, F, Cl, methyl or ethyl;

R_4 is H, CH_3 , or F;

R_5 is

- (c) $\text{C}(=\text{O})\text{C}_{1-4}\text{alkyl}$,
- (d) $\text{C}(=\text{O})\text{OC}_{1-4}\text{alkyl}$,
- (e) $\text{C}(=\text{O})\text{NHR}_6$, or
- (f) $\text{C}(=\text{S})\text{NHR}_6$;

R_6 is H, $\text{C}_{1-4}\text{alkyl}$, or phenyl;

at each occurrence, alkyl in R_5 and R_6 is optionally substituted with one or more halo, CN, NO_2 , phenyl, $\text{C}_{3-6}\text{cycloalkyl}$, OR_7 , $[\text{C}(=\text{O})\text{R}^7]$ $\text{C}(=\text{O})\text{R}_7$, $\text{OC}(=\text{O})\text{R}_7$, $\text{C}(=\text{O})\text{OR}_7$, $\text{S}(=\text{O})_m\text{R}_7$, $\text{S}(=\text{O})_m\text{NR}_7\text{R}_7$, $\text{NR}_7\text{SO}_2\text{R}_7$, $\text{NR}_7\text{SO}_2\text{NR}_7\text{R}_7$, $\text{NR}_7\text{C}(=\text{O})\text{R}_7$, $\text{C}(=\text{O})\text{NR}_7\text{R}_7$, NR_7R_7 , oxo, or oxime;

R_7 is H, $\text{C}_{1-4}\text{alkyl}$, or phenyl;

at each occurrence, phenyl is optionally substituted with one or more halo, CF_3 , CH_3 , CN, NO_2 , phenyl, $\text{C}_{3-6}\text{cycloalkyl}$, OR_7 , $[\text{C}(=\text{O})\text{R}^7]$ $\text{C}(=\text{O})\text{R}_7$, $\text{OC}(=\text{O})\text{R}_7$, $\text{C}(=\text{O})\text{OR}_7$, $\text{S}(=\text{O})_m\text{R}_7$, $\text{S}(=\text{O})_m\text{NR}_7\text{R}_7$, $\text{NR}_7\text{SO}_2\text{R}_7$, $\text{NR}_7\text{SO}_2\text{NR}_7\text{R}_7$, $\text{NR}_7\text{C}(=\text{O})\text{R}_7$, $\text{C}(=\text{O})\text{NR}_7\text{R}_7$, or NR_7R_7 ;

het is a C-linked five- (5) membered heteroaryl ring having 1-4 heteroatoms selected from the group consisting of oxygen, sulfur, and nitrogen, or het is a C-linked six (6) membered heteroaryl ring having 1-3 nitrogen atoms;

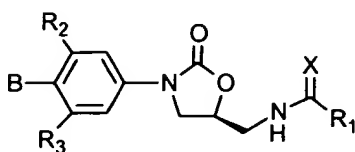
p is 0, 1, or 2;

j is 1, 2, 3, 4, or 5; provided that **[k and j] i and p** taken together are 2, 3, 4 or 5;

m is 0, 1, or 2;

n is 2 or 3; and --- in structure iii is either a double bond or a single bond.

2. A compound of [formula I which is a compound of formula IA:] claim 1 having the formula IA:



IA.

46. A compound of claim 2 which is

N-((5*S*)-3-[3-fluoro-4-[1-(acetylimino)-1-oxido-1,3-oxazolidin-5-yl]-phenyl]-2-oxo-1,3-oxazolidin-5-yl)methyl)acetamide, *Z*-isomer;

N-((5*S*)-3-[3-fluoro-4-[1-(acetylimino)-1-oxido-1,3-oxazolidin-5-yl]-phenyl]-2-oxo-1,3-oxazolidin-5-yl)methyl)propanethioamide, *Z*-isomer;

N-((5*S*)-3-[3-fluoro-4-(1-[(methylamino)carbonyl]imino)-1-oxido-1,3-oxazolidin-5-yl]-phenyl]-2-oxo-1,3-oxazolidin-5-yl)methyl)propanethioamide, *Z*-isomer;

N-((5*S*)-3-[3-fluoro-4-(1-[(methoxycarbonyl)imino]-1-oxido-1,3-oxazolidin-5-yl)-phenyl]-2-oxo-1,3-oxazolidin-5-yl)methyl)propanethioamide, *Z*-isomer;

N-((5*S*)-3-[3-fluoro-4-(1-[(ethoxycarbonyl)methyl]imino)-1-oxido-1,3-oxazolidin-5-yl]-phenyl)-2-oxo-1,3-oxazolidin-5-yl)methyl)propanethioamide, *Z*-isomer;

N-((5*S*)-3-[3-fluoro-4-(1-[[[(4-nitrophenyl)amino]carbonyl]imino]-1-oxido-1,3-oxazolidin-5-yl)-phenyl]-2-oxo-1,3-oxazolidin-5-yl)methyl)propanethioamide, *Z*-isomer ;

N-((5*S*)-3-[3-fluoro-4-[1-[(aminocarbonyl)imino]-1-oxido-1,3-oxazolidin-5-yl]-phenyl]-2-oxo-1,3-oxazolidin-5-yl)methyl)propanethioamide, *Z*-isomer;

N-((5*S*)-3-[3-fluoro-4-[1-[(aminocarbonyl)methyl]imino]-1-oxido-1,3-oxazolidin-5-yl]-phenyl)-2-oxo-1,3-oxazolidin-5-yl)methyl)propanethioamide, *Z*-isomer;

N-(((5S)-3-{3-fluoro-4-(1-[(methoxycarbonyl)imino]-1-oxido-1 λ^4 , 4-thiazinan-4-yl)phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]propanethioamide;

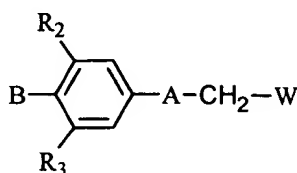
N-(((5S)-3-{3-fluoro-4-(1-[(methoxycarbonyl)imino]-1-oxido-1 λ^4 , 4-thiazinan-4-yl)phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl)cyclopropanecarbothioamide ;

N-(((5S)-3-{3-fluoro-4-[1-[(methoxycarbonyl)imino]-1-oxido-1 λ^4 -thiopyran-4-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl) cyclopropanecarbothioamide, Z-isomer;

N-(((5S)-3-{3-fluoro-4-[1-[(phenylmethoxy)[carbonyl][carbonyl]imino]-1-oxido-1 λ^4 -thiopyran-4-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl)acetamide, Z-isomer; or

N-(((5S)-3-{3-[**Fluoro** fluoro-4-(1-[(benzylamino)carbonyl]imino)-1-oxido-1 λ^4 -thiopyran-4-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl)acetamide, Z-isomer.

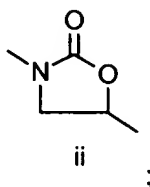
47. 1. A compound of formula II



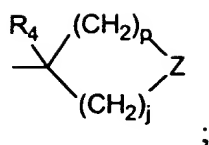
II

or a pharmaceutically acceptable salt thereof wherein:

A is a structure ii



B is

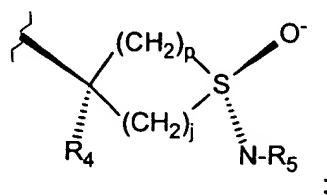


W is $\text{NHC}(=\text{X})\text{R}_1$, or -Y-het; [provided that when A is a structure iv, W is not -Y-het;]

X is O, or S; [provided that when X is O, B is not the subsection (b).]

Y is NH, O, or S;

Z is $\text{S}(=\text{O})(=\text{N}-\text{R}_5)$ and the B ring has the following stereochemistry



R_1 is

- (a) H,
- (b) NH_2 ,
- (c) $\text{NHC}_{1-4}\text{alkyl}$,
- (d) $\text{C}_{1-4}\text{alkyl}$,
- (e) $\text{C}_{2-4}\text{alkenyl}$,
- (f) $\text{OC}_{1-4}\text{alkyl}$,
- (g) $\text{SC}_{1-4}\text{alkyl}$, or
- (h) $(\text{CH}_2)_p \text{C}_{3-6}\text{cycloalkyl}$;

at each occurrence, alkyl or cycloalkyl in R_1 is optionally substituted with one or more F, Cl or CN;

R_2 and R_3 are independently H, F, Cl, methyl or ethyl;

R_4 is H, CH_3 , or F;

R_5 is

- (a) H,
- (b) $\text{C}_{1-4}\text{alkyl}$,
- (c) $\text{C}(=\text{O})\text{C}_{1-4}\text{alkyl}$,
- (d) $\text{C}(=\text{O})\text{OC}_{1-4}\text{alkyl}$,

(e) $C(=O)NHR_6$, or

(f) $C(=S)NHR_6$;

R₆ is H, C₁₋₄alkyl, or phenyl;

at each occurrence, alkyl in R₅ and R₆ is optionally substituted with one or more halo, CN, NO₂, phenyl, C₃₋₆ cycloalkyl, OR₇, [C(=O)R⁷] C(=O)R₇, OC(=O)R₇, C(=O)OR₇, S(=O)_mR₇, S(=O)_mNR₇R₇, NR₇SO₂R₇, NR₇SO₂NR₇R₇, NR₇C(=O)R₇, C(=O)NR₇R₇, NR₇R₇, oxo, or oxime; R₇ is H, C₁₋₄alkyl, or phenyl;

at each occurrence, phenyl is optionally substituted with one or more halo, CF₃, CH₃, CN, NO₂, phenyl, C₃₋₆ cycloalkyl, OR₇, [C(=O)R⁷] C(=O)R₇, OC(=O)R₇, C(=O)OR₇, S(=O)_mR₇, S(=O)_mNR₇R₇, NR₇SO₂R₇, NR₇SO₂NR₇R₇, NR₇C(=O)R₇, C(=O)NR₇R₇, or NR₇R₇;

het is a C-linked five- (5) membered heteroaryl ring having 1-4 heteroatoms selected from the group consisting of oxygen, sulfur, and nitrogen, or het is a C-linked six (6) membered heteroaryl ring having 1-3 nitrogen atoms;

p is 0, 1, or 2;

j is 1, 2, 3, 4, or 5; provided that [k and j] i and p taken together are 2, 3, 4 or 5;

m is 0, 1, or 2;

[n is 2 or 3;] and ----- in structure iii is either a double bond or a single bond..

52. The compound of claim 47 wherein R₁ is cyclopropyl.

65. A compound of claim 47 which is

N-((5S)-3-[3-fluoro-4-(1-imino-1-oxidohexahydro-1λ⁴-thiopyran-4-yl)phenyl]-2-oxo-1,3-oxazolidin-5-yl)methyl)acetamide (Z)-isomer;

N-((5S)-3-[3-fluoro-4-(1-imino-1-oxidohexahydro-1λ⁴-thiopyran-4-yl)phenyl]-2-oxo-1,3-oxazolidin-5-yl)methyl)ethanethioamide (Z)-isomer;

N-((5S)-3-[3-fluoro-4-(1-imino-1-oxidohexahydro-1λ⁴-thiopyran-4-yl)phenyl]-2-oxo-1,3-oxazolidin-5-yl)methyl)propanethioamide (Z)-isomer;

N-((5S)-3-[3-fluoro-4-(1-imino-1-oxidohexahydro-1λ⁴-thiopyran-4-yl)phenyl]-2-oxo-1,3-oxazolidin-5-yl)methyl)cyclopropanethioamide (Z)-isomer;

N-((5S)-3-[3-fluoro-4-[1-(acetylimino)-1-oxidohexahydro-1 λ^4 -thiopyran-4-yl]phenyl]-2-oxo-1,3-oxazolidin-5-yl)methyl)acetamide, Z-isomer;

N-((5S)-3-[3-fluoro-4-[1-(methylimino)-1-oxidohexahydro-1 λ^4 -thiopyran-4-yl]phenyl]-2-oxo-1,3-oxazolidin-5-yl)methyl)propanethioamide, Z-isomer;

N-((5S)-3-[3-fluoro-4-[1-(acetylimino)-1-oxidohexahydro-1 λ^4 -thiopyran-4-yl]phenyl]-2-oxo-1,3-oxazolidin-5-yl)methyl)propanethioamide, Z-isomer;

N-((5S)-3-[3-fluoro-4-[1-(ethylimino)-1-oxidohexahydro-1 λ^4 -thiopyran-4-yl]phenyl]-2-oxo-1,3-oxazolidin-5-yl)methyl)propanethioamide, Z-isomer;

N-((5S)-3-[3-fluoro-4-[1-[(phenylmethyl)imino]-1-oxidohexahydro-1 λ^4 -thiopyran-4-yl]phenyl]-2-oxo-1,3-oxazolidin-5-yl)methyl)propanethioamide, Z-isomer;

N-((5S)-3-[3-fluoro-4-[1-[(3-phenylpropyl)imino]-1-oxidohexahydro-1 λ^4 -thiopyran-4-yl]phenyl]-2-oxo-1,3-oxazolidin-5-yl)methyl)propanethioamide, Z-isomer;

N-((5S)-3-[3-fluoro-4-(1-[(methylamino)carbonyl]imino)-1-oxidohexahydro-1 λ^4 -thiopyran-4-yl]phenyl]-2-oxo-1,3-oxazolidin-5-yl)methyl)propanethioamide, Z-isomer;

N-((5S)-3-[3-fluoro-4-(1-[(methoxycarbonyl)imino]-1-oxidohexahydro-1 λ^4 -thiopyran-4-yl]phenyl)-2-oxo-1,3-oxazolidin-5-yl)methyl)propanethioamide, Z-isomer;

N-((5S)-3-[3-fluoro-4-(1-[(ethoxycarbonyl)methyl]imino)-1-oxidohexahydro-1 λ^4 -thiopyran-4-yl]phenyl)-2-oxo-1,3-oxazolidin-5-yl)methyl)propanethioamide, Z-isomer;

N-((5S)-3-[3-fluoro-4-(1-[[[(4-nitrophenyl)amino]carbonyl]imino]-1-oxidohexahydro-1 λ^4 -thiopyran-4-yl]phenyl)-2-oxo-1,3-oxazolidin-5-yl)methyl)propanethioamide, Z-isomer ;

N-((5S)-3-[3-fluoro-4-[1-[(aminocarbonyl)imino]-1-oxidohexahydro-1 λ^4 -thiopyran-4-yl]phenyl]-2-oxo-1,3-oxazolidin-5-yl)methyl)propanethioamide, Z-isomer;

N-((5S)-3-[3-fluoro-4-[1-[[[(aminocarbonyl)methyl]imino]-1-oxidohexahydro-1 λ^4 -thiopyran-4-yl]phenyl]-2-oxo-1,3-oxazolidin-5-yl)methyl)propanethioamide, Z-isomer;

N-((5S)-3-[3-fluoro-4-[1-[(2-hydroxyethyl)imino]-1-oxidohexahydro-1 λ^4 -thiopyran-4-yl]phenyl]-2-oxo-1,3-oxazolidin-5-yl)methyl)propanethioamide, Z-isomer;

N-((5S)-3-[3-fluoro-4-[1-(methylimino)-1-oxidohexahydro-1 λ^4 -thiopyran-4-yl]phenyl]-2-oxo-1,3-oxazolidin-5-yl)methyl)cyclopropanecarbothioamide, Z-isomer;

N-(((5S)-3-{3-fluoro-4-[1-[(methoxycarbonyl)imino]-1-oxidohexahydro-1 λ ⁴-thiopyran-4-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]cyclopropanecarbothioamide, Z-isomer;

N-(((5S)-3-{3-fluoro-4-[1-[[[(phenylmethoxy)[**carbnonyl**]**carbonyl**]imino]-1-oxidohexahydro-1 λ ⁴-thiopyran-4-yl]phenyl}-2-oxo-1,3-oxazolidin-5-yl)methyl]acetamide, Z-isomer; or

N-(((5S)-3-[3-[**Fluoro**] **Fluoro**-4-(1-{{(benzylamino)carbonyl]imino})-1-oxidohexahydro-1 λ ⁴-thiopyran-4-yl]phenyl]-2-oxo-1,3-oxazolidin-5-yl)methyl]acetamide, Z-isomer.